THE AMINO ACID SEQUENCE OF HPV 11 L2 MINOR CAPSID PROTEIN

MKPRARRKRASATQLYQTCKATGTCPPDVIPKVEHTTIADQILKWGSLGVF FGGLGIGTGAGSGGRAGYIPLGSSPKPAITGGPAARPPVLVEPVAPSDPSIVSLI EESAIINAGAPEVVPPTQGGFTITSSESTTPAILDVSVTNHTTTSVFQNPLFTEPS VIQPQPPVEASGHILISAPTITSQHVEDIPLDTFVVSSSDSGPTSSTPLPRAFPRPR VGLYSRALQQVQVTDPAFLSTPQRLVTYDNPVYEGEDVSLQFTHESIHNAPD EAFMDIIRLHRPAITSRRGLVRFSRIGQRGSMYTRSGQHIGARIHYFQDISPVTQ AAEEIELHPLVAAENDTFDIYAEPFDPIPDPVQHSVTQSYLTSTPNTLSQSWGN TTVPLSIPSDWFVQSGPDITFPTASMGTPFSPVTPALPTGPVFITGSDFYLHPTW YFARRRKRIPLFFTDVAA (SEQ. ID. No. 1)

THE AMINO ACID SEQUENCE OF HPV 6B L2 MINOR CAPSID PROTEIN

MAHSRARRKRASATQLYQTCKLTGTCPPDVIPKVEHNTIADQILKWGSLGVFFGGL GIGTGSGTGGRTGYVPLQTSAKPSITSGPMARPPVVVEPVAPSDPSIVSLIEESAIINAG APEIVPPAHGGFTITSSETTTPAILDVSVTSHTTTSIFRNPVFTEPSVTQPQPPVEANGHI LISAPTVTSHPIEEIPLDTFVVSSSDSGPTSSTPVPGTAPRPRVGLYSRALHQVQVTDPA FLSTPQRLITYDNPVYEGEDVSVQFSHDSIHNAPDEAFMDIIRLHRPAIASRRGLVRYS RIGQRGSMHTRSGKHIGARIHYFYDISPIAQAAEEIEMHPLVAAQDDTFDIYAESFEPG INPTQHPVTNISDTYLTSTPNTVTQPWGNTTVPLSLPNDPFLQSGPDITFPTAPMGTPFS PVTPALPTGPVFITGSGFYLHPAWYFARKRRKRIPLFFSDVAA (SEQ. ID. No. 2)

THE AMINO ACID SEQUENCE OF HPV 16 L2 MINOR CAPSID PROTEIN

MRHKRSAKRTKRASATQLYKTCKQAGTCPPDIIPKVEGKTIAEQILQYGSMGVFFGG LGIGTGSGTGGRTGYIPLGTRPPTATDTLAPVRPPLTVDPVGPSDPSIVSLVEETSFIDA GAPTSVPSIPPDVSGFSITTSTDTTPAILDINNTVTTVTTHNNPTFTDPSVLQPPTPAETG GHFTLSSSTISTHNYEEIPMDTFIVSTNPNTVTSSTPIPGSRPVARLGLYSRTTQQVKVV DPAFVTTPTKLITYDNPAYEGIDVDNTLYFSSNDNSINIAPDPDFLDIVALHRPALTSR RTGIRYSRIGNKQTLRTRSGKSIGAKVHYYYDLSTIDPAEEIELQTITPSTYTTTSHAAS PTSINNGLYDIYADDFITDTSTTPVPSVPSTSLSGYIPANTTIPFGGAYNIPLVSGPDIPIN ITDQAPSLIPIVPGSPQYTIIADAGDFYLHPSYYMLRKRRKRLPYFFSDVSLAA (SEQ. ID. No. 3)

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THE AMINO ACID SEQUENCE OF HPV 33 L2 MINOR CAPSID PROTEIN

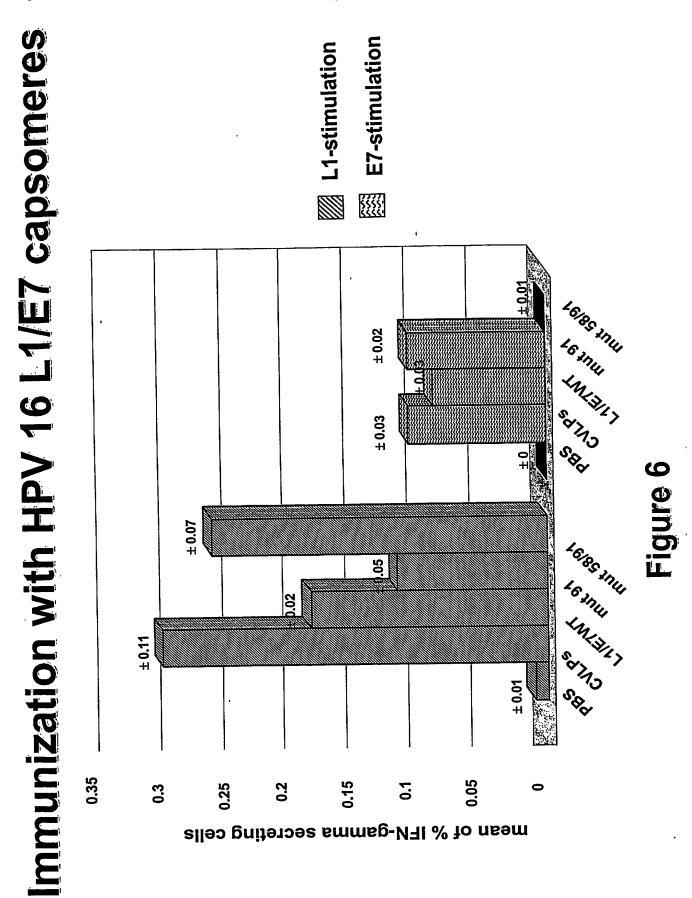
MRHKRSTRRKRASATQLYQTCKATGTCPPDVIPKVEGSTIADQILKYGSLGVFFGGL GIGTGSGSGGRTGYVPIGTDPPTAAIPLQPIRPPVTVDTVGPLDSSIVSLIEETSFIEAGA PAPSIPTPSGFDVTTSADTTPAIINVSSVGESSIQTISTHLNPTFTEPSVLHPPAPAEASGH FIFSSPTVSTQSYENIPMDTFVVSTDSSNVTSSTPIPGSRPVARLGLYSRNTQQVKVVD PAFLTSPHKLITYDNPAFESFDPEDTLQFQHSDISPAPDPDFLDIIALHRPAITSRRHTVR FSRVGQKATLKTRSGKQIGARIHYYQDLSPIVPLDHTVPNEQYELQPLHDTSTSSYSIN DGLYDVYADDVDNVHTPMQHSYSTFATTRTSNVSIPLNTGFDTPVMSGPDIPSPLFPT SSPFVPISPFFPFDTIVVDGADFVLHPSYFILRRRRKRFPYFFTDVRVAA (SEQ. ID. No. 4)

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44 Residue L2 domain Required for L1 Binding

	196-439)	(400-443)	112-455)	106-449)	155-498)	466-508)	466-508)	459-503)	410-460)
	SGPDITFPTASMG-TPF4PVTPALFTGPVFITGSDFYLHPTWYFA- (396-439)	SGPDITEPTAPMG-TPFSPVTPALPTGPVFITGSGFYLHPAWYFA- (4	SGPDIPINITDQA-PSL1PIVPGSPQYTIIADAGDFYLHPSYYML- (412-455)	SGPDIPSPLFPISSPFV-PISPFFPFDTIVVDGADFVLHPSYFIL- (406-449)	TSLHVYYPNSSKGT PIINPESSF-TPLVIIALNNSTGDPELHPSL (455-498)	KGYYVAYPESRNNAEII APTPDIFVVIIHHDNTGDFYLHPSL (466-508)	QGYYVAYPEHRNTAEIIAPTPDIPWVVIHTHDNSGDFYLHPSL (466-508)	EGVHIIHPGSRSD-FWLHPVTPDSTPAIVIDILDSSADYYLHPSLI (459-503)	PDIYSASPVIDPDSTS-PELVIDDITITIPHILIDGHIVDLYSSNYTLHPSLL (410-460)
A AEE A	PVTPAL PTGPVFI	putpalpigpufi	PIVPGSPQYTIIA	PISPFFPFDTIV	PIINPEESF-TPLVIIAI	HIIAAHIGGLE	PTPDIPVVVIH)	PVTPDSTPAIVID	PSLVIDDTTTTTIIID
	SGPDITFPTASMG-TPFS	SGPDITFPTAPMG-TPFS	SGPDIPINITDQA-PSLI	SGPDIPSPLFPTSSPFV-	TSLHVYYPNSS KGT	KGYYVAYPESRNNAEIIY	QGYYVAYPEHRNTAEIIY	EGVHIIHPGSESD-FWLE	PDTYSASPVTDPDSTS-
	HPV11	HPV6b	HPV16	НРУЗЗ	* * HPV1a	* HPV5	* HPV12	* COPV1	* * BPV1

hydrophobic region between conserved prolines



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Regression of HPV 16 positive tumors

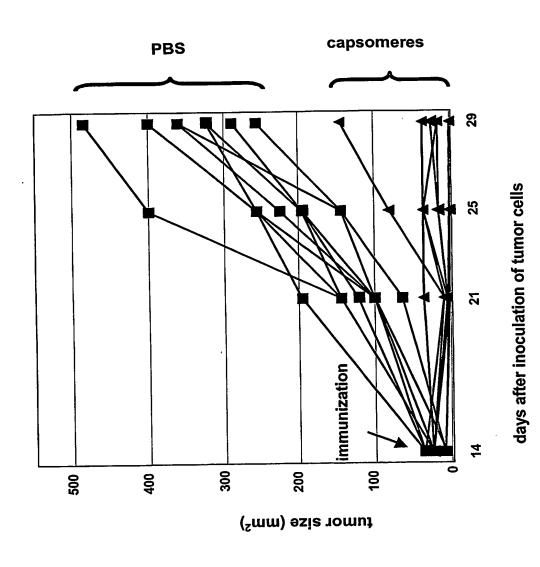


Figure 7

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